

none

none

© PAJ / JPO

10/511068  
DT04 Rec'd PCT/PTO 12 OCT 2004

I - G01L9/00 ;G01F1/20 ;G01F1/38 ;G01L7/00

PN - JP9072803 A 19970318

TI - VARYING PRESSURE SENSOR

AB - PROBLEM TO BE SOLVED: To obtain a varying pressure sensor having simple structure requiring no power supply at the sensor section nor any auxiliary circuit of amplifier, AD converter, or the like.  
- SOLUTION: A membrane 62 made of a material having high magnetic permeability is stretched in the central part of a container 61 and a permanent magnet 63 is disposed to hold the membrane 62 between two poles thereof. The air chambers 68, 69 in the container 61 partitioned by the membrane 62 are coupled through pressure introduction pipes 51, 52 with the pressure introduction hole of a fluidic element. Fluidic oscillation of the fluidic element generates a pressure difference between the pressure introduction pipes 51, 52 for oscillating the membrane 62 to cause variation of magnetic field in the vicinity thereof. A magnetic sensor 65 disposed in the vicinity of membrane 62 detects the variation of magnetic field and outputs a high voltage pulse produced through large Barkhausen effect. A fluidic oscillation frequency is determined by counting the voltage pulses and expressed in terms of flow rate.

PA - TOKYO GAS CO LTD

IN - NUKUI KAZUMITSU;SAKAI KATSUTO;KATO HIDEO;SATOU SOUBUN;SATO SHINICHI

ABD - 19970731

ABV - 199707

AP - JP19950254581 19950906

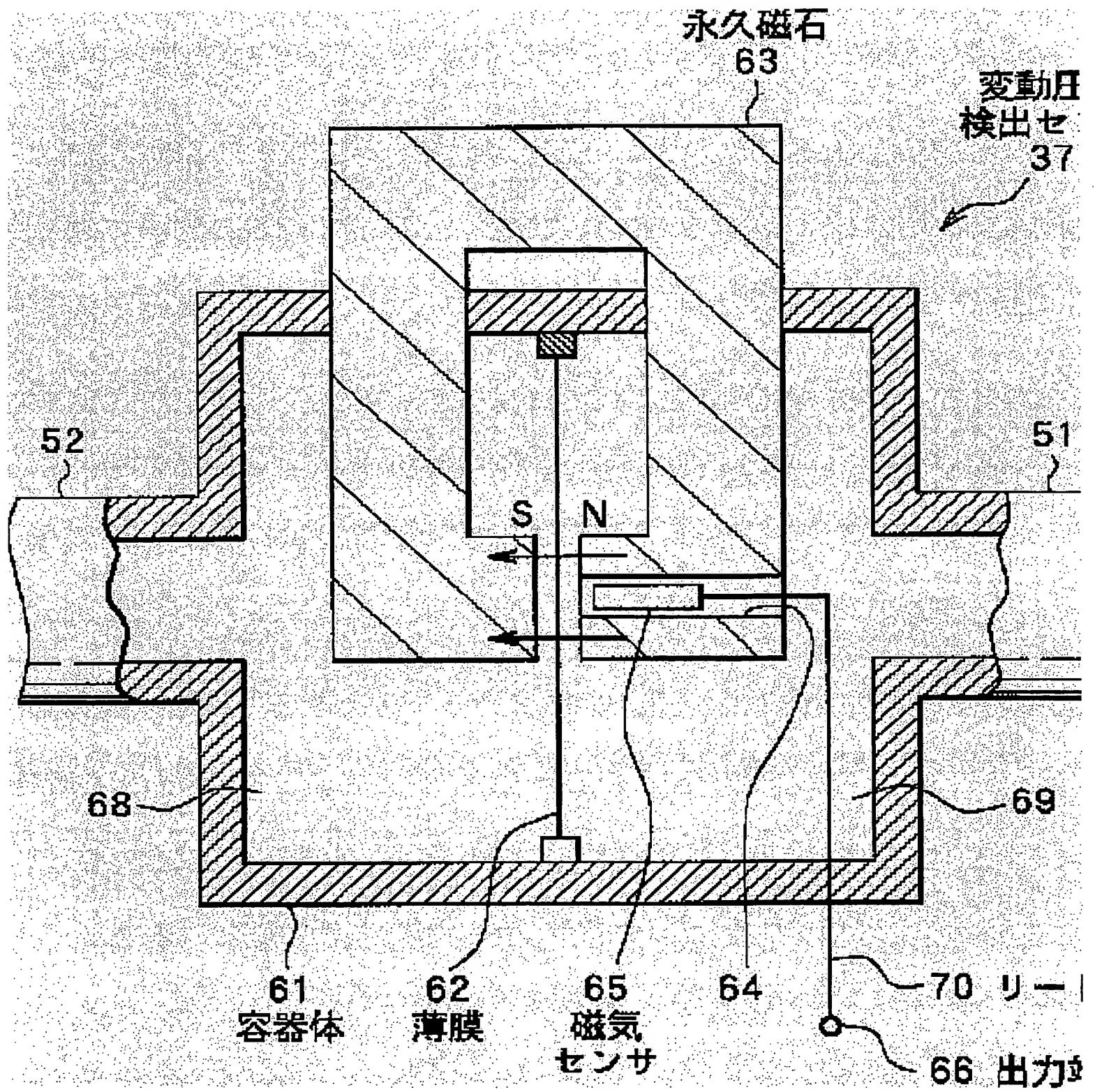
PD - 1997-03-18

Best Available Copy

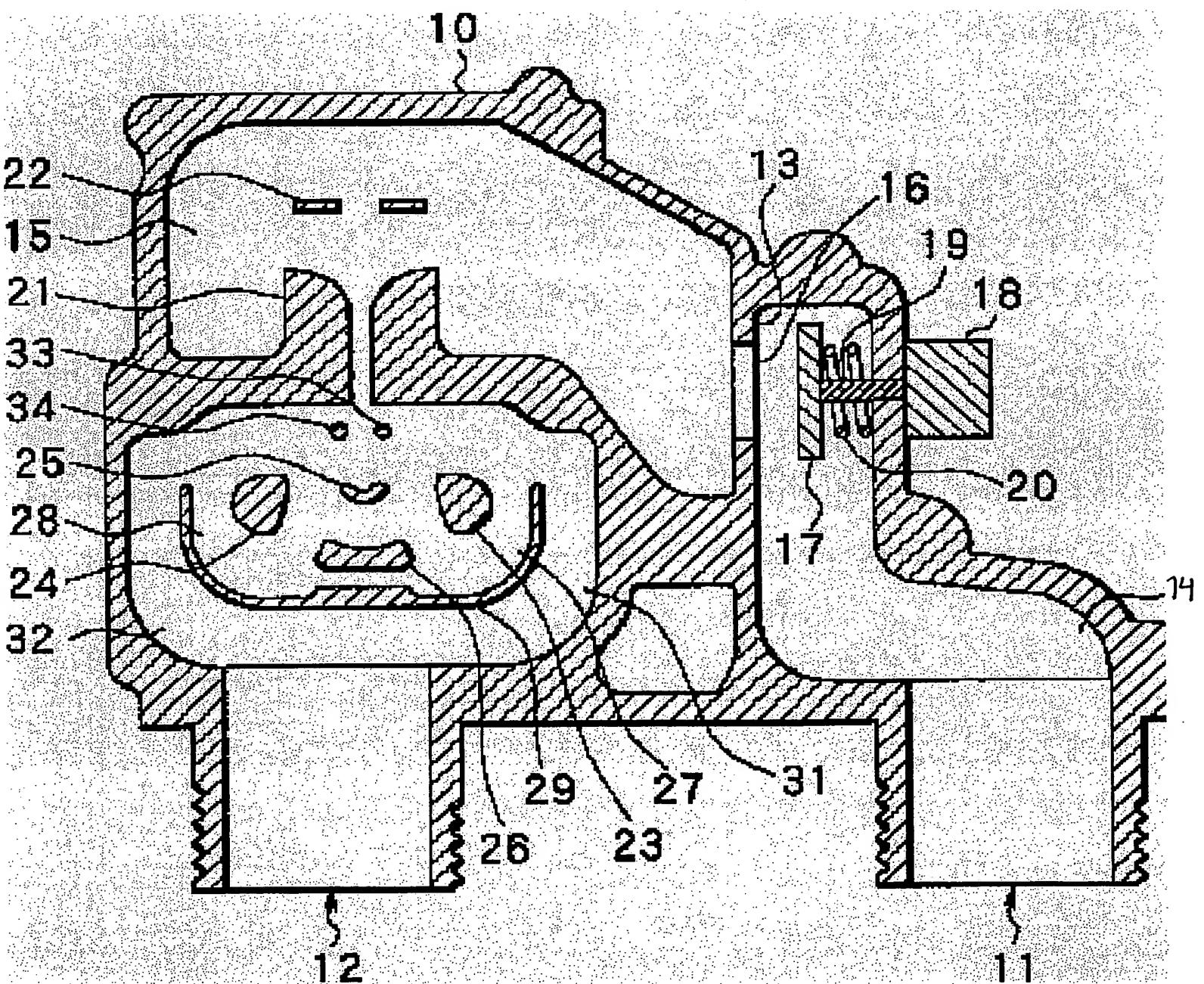
none

none

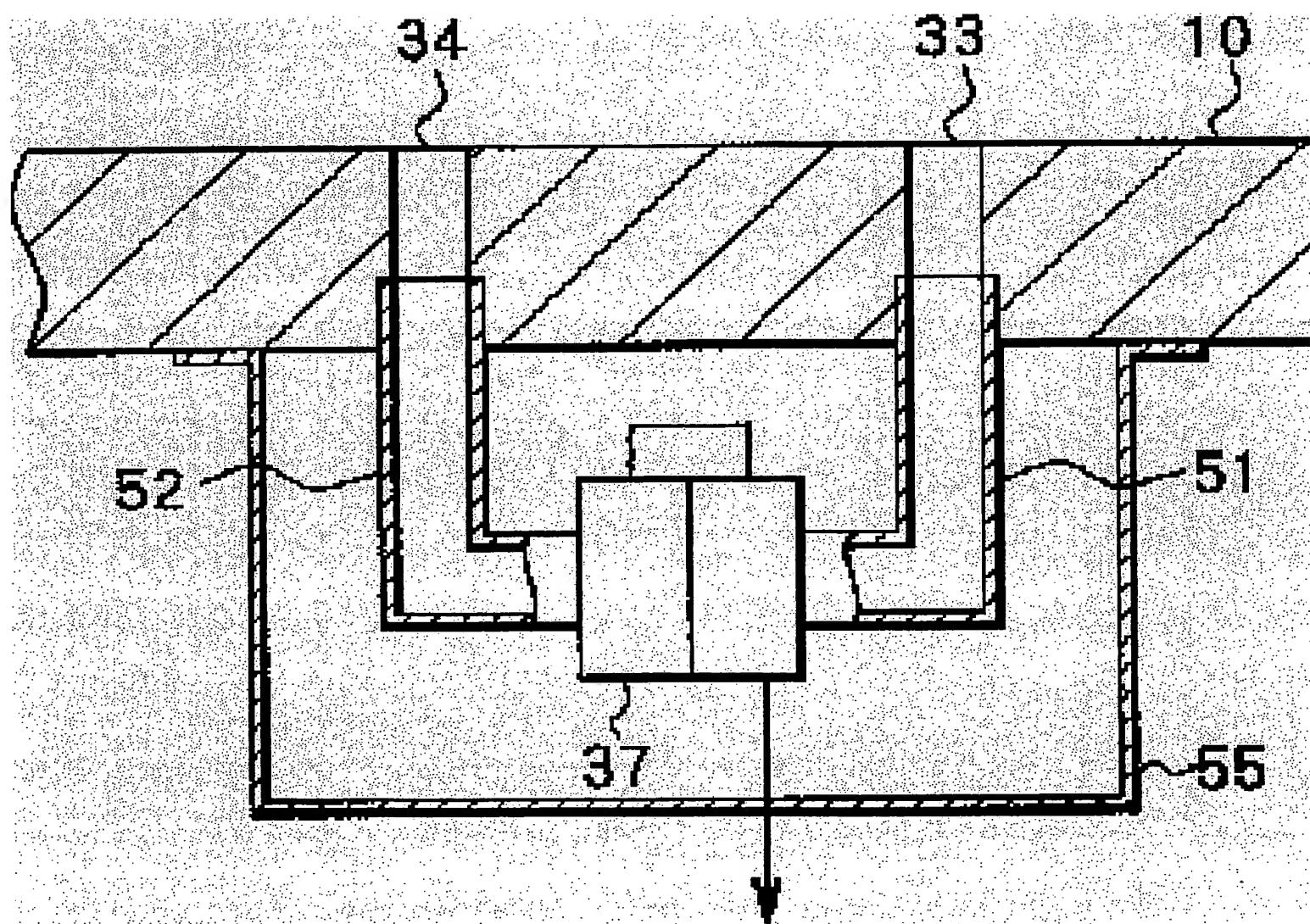
none



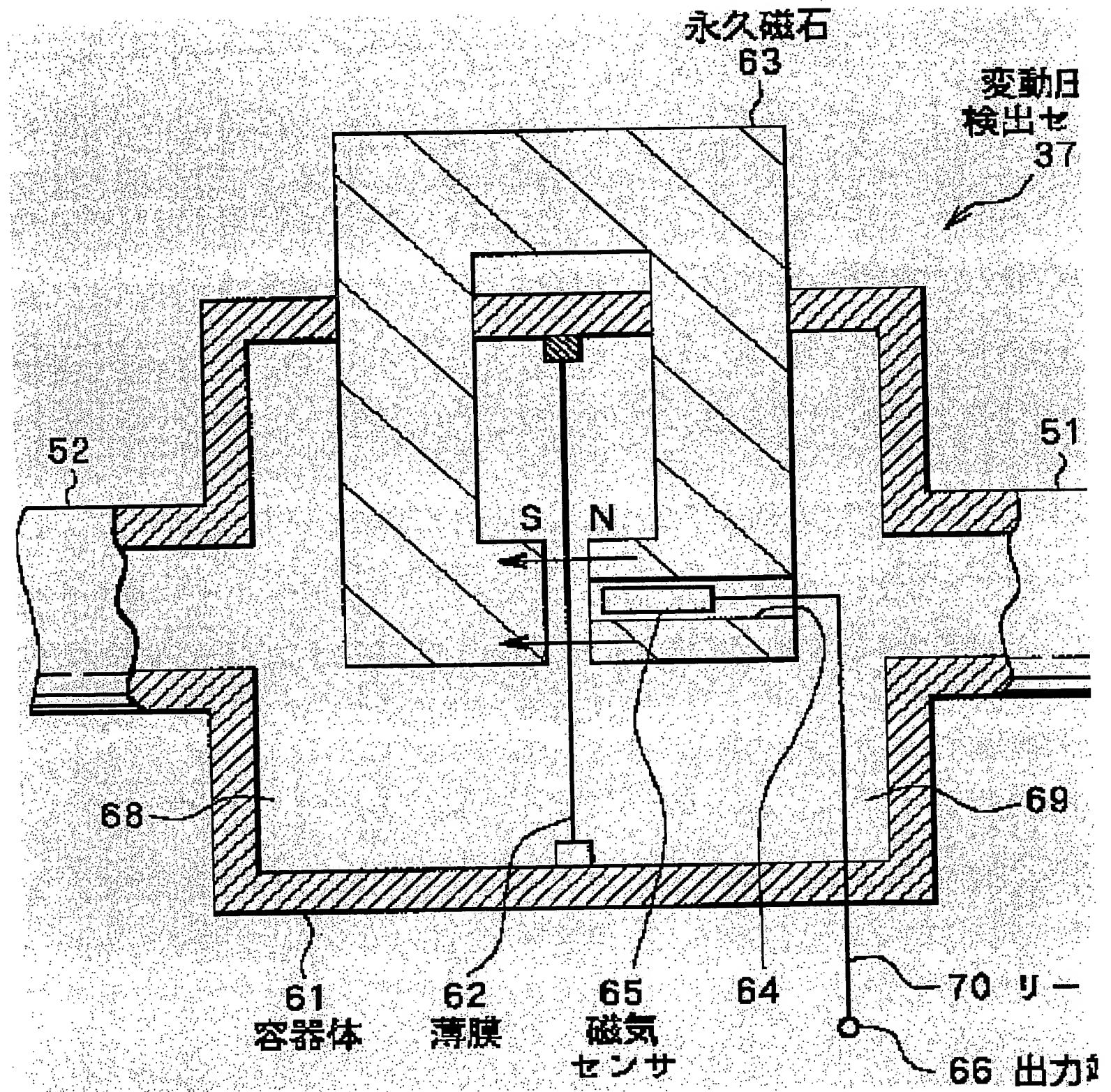
Best Available Copy



Best Available Copy

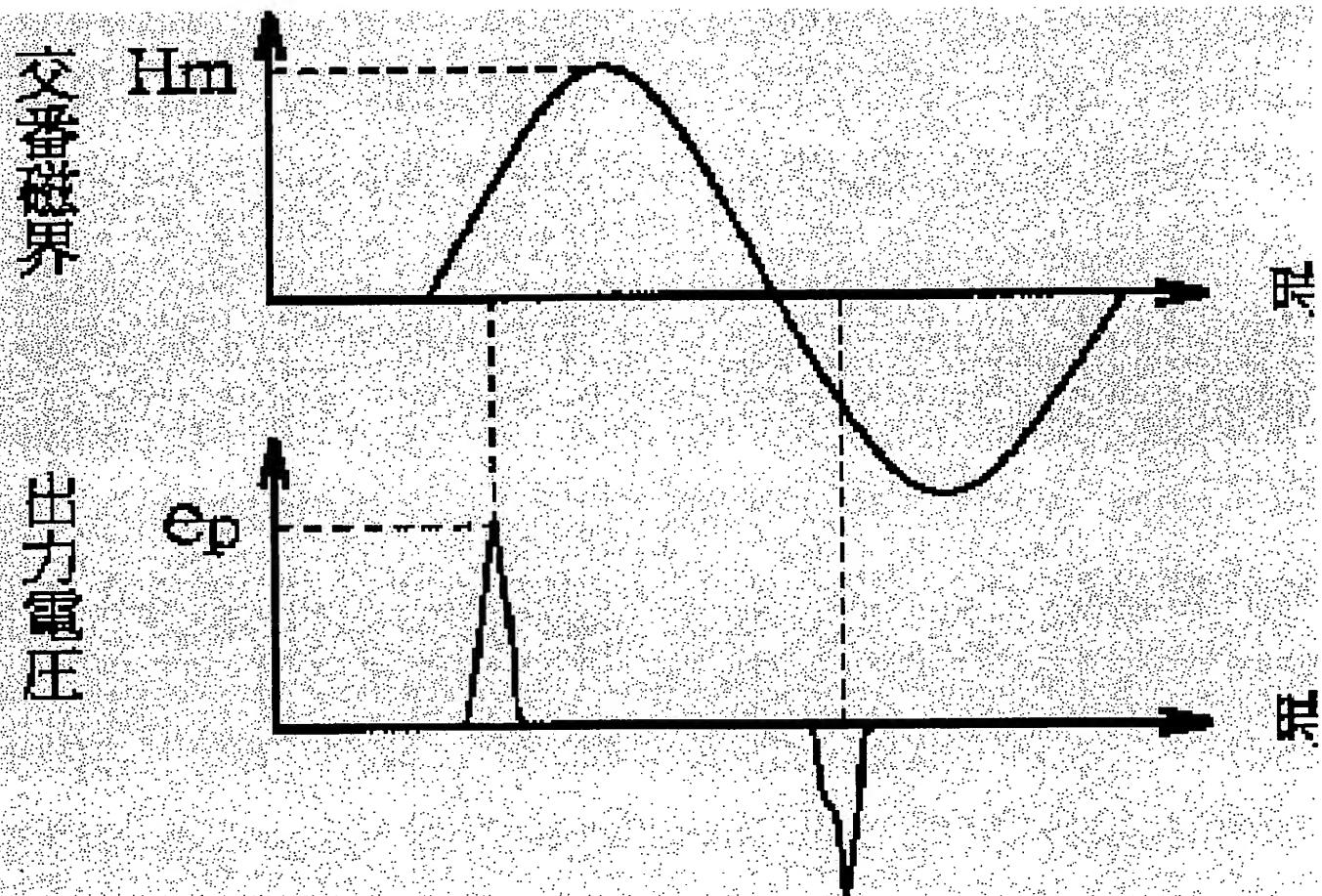


Best Available Copy

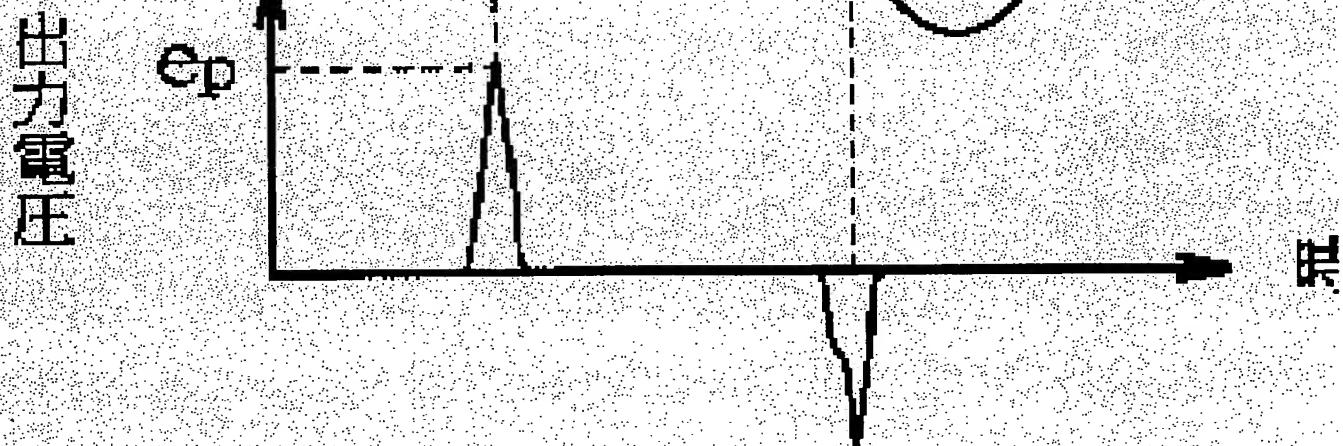


Best Available Copy

(a)



(b)



Best Available Copy

変動圧  
検出セ：  
38

磁気センサ  
65

永久磁石  
71

51

69

70  
66

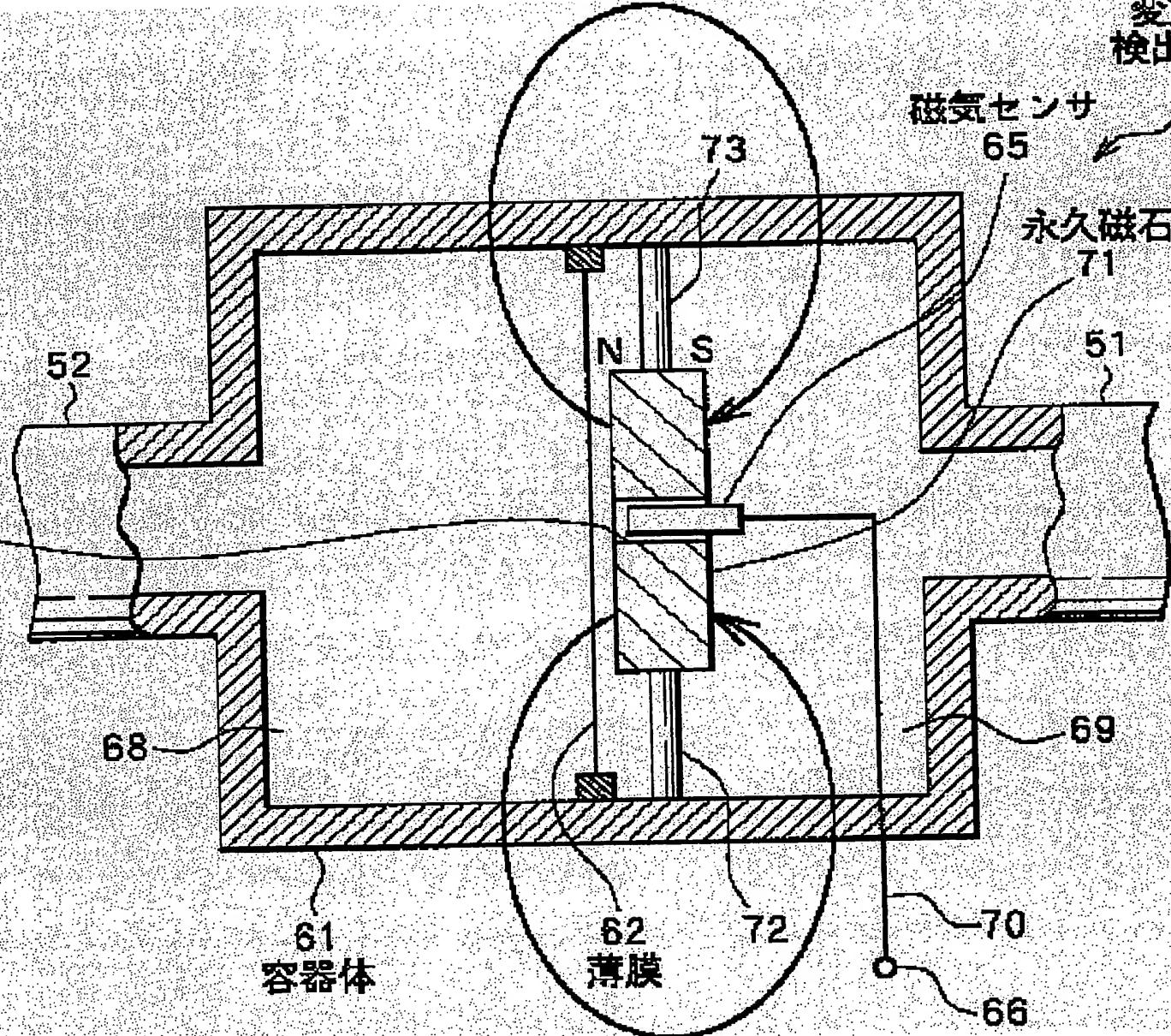
62 薄膜

72

61 容器体

N S

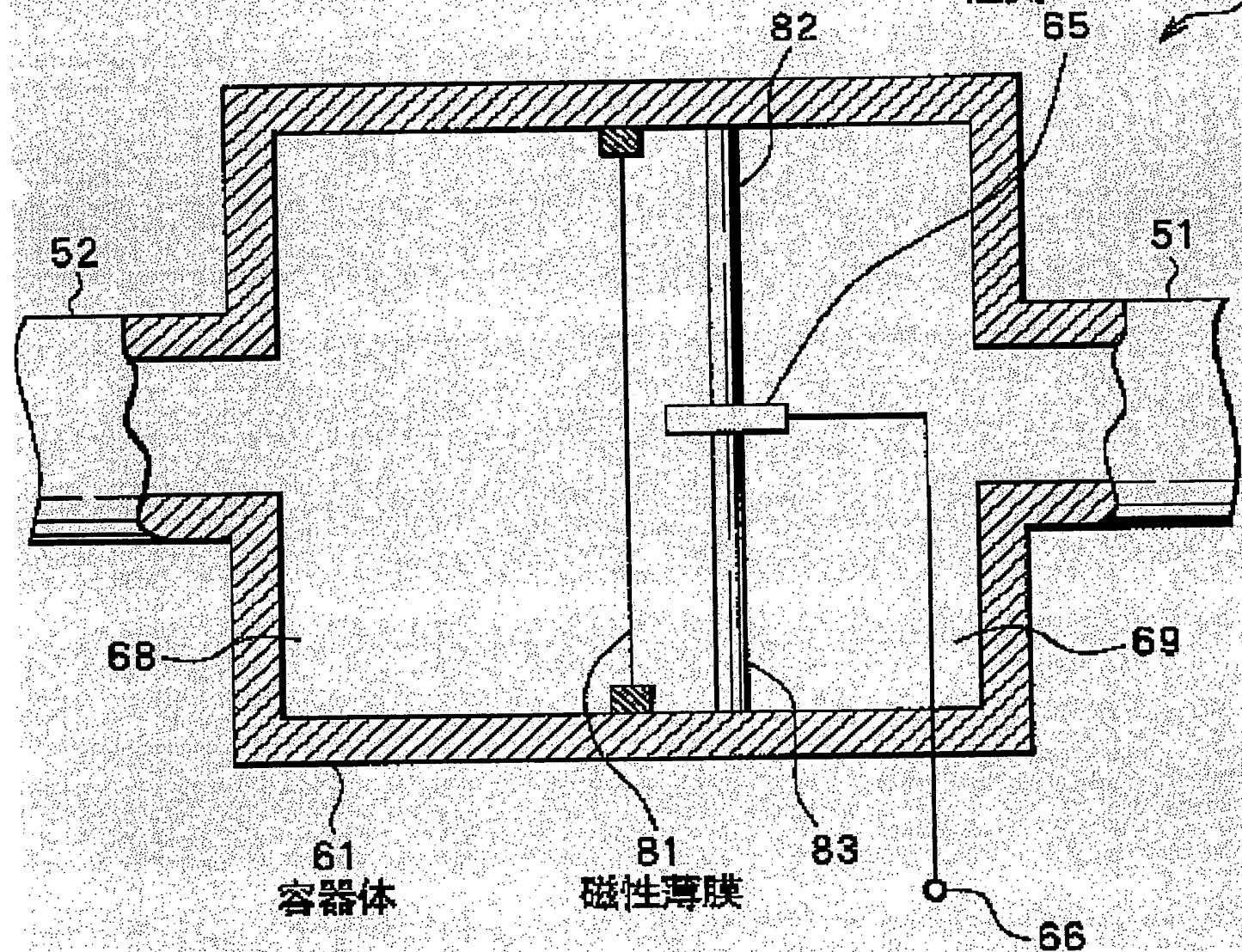
73



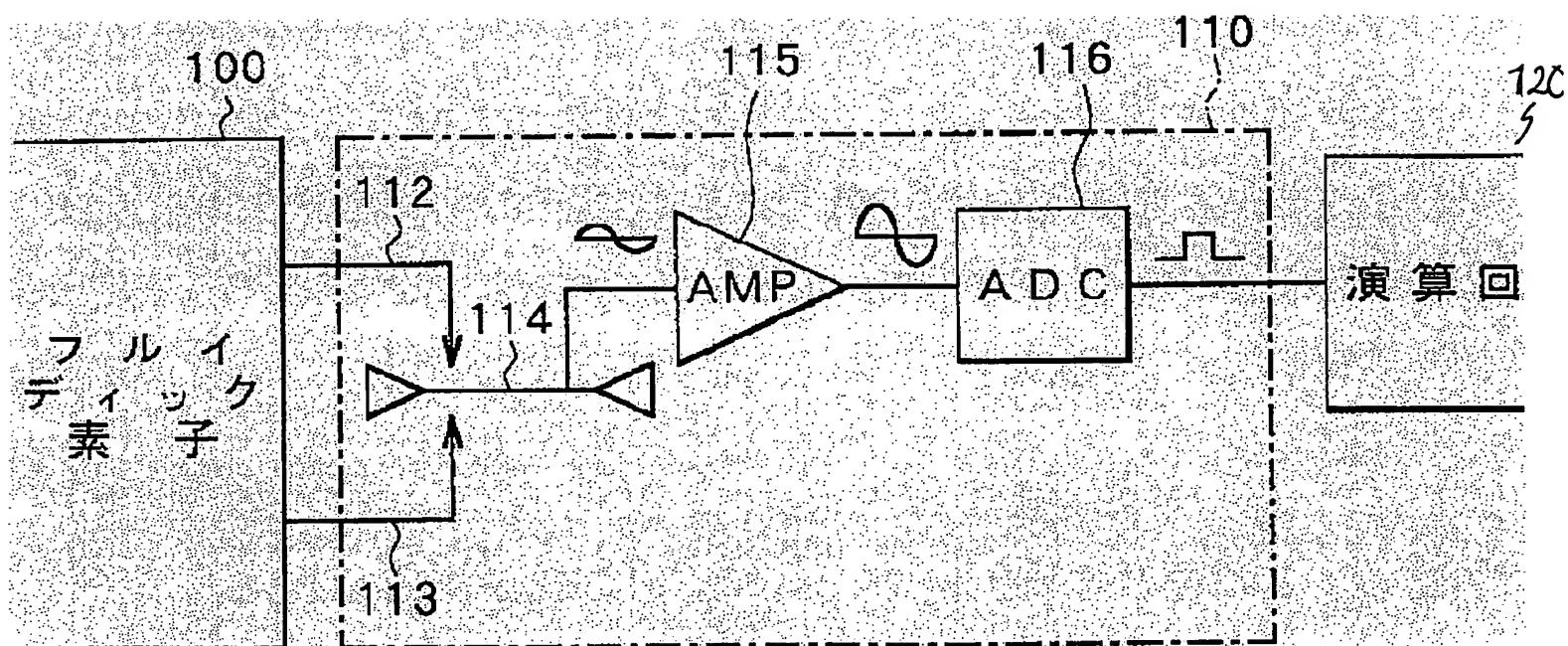
Best Available Copy

変動圧  
検出セン  
39

磁気センサ  
65



Best Available Copy



Best Available Copy